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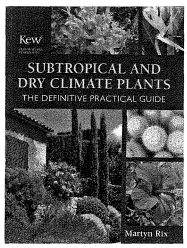
BOOK REVIEWS



SUBTROPICAL AND DRY CLIMATE PLANTS: THE DEFINITIVE PRACTICAL GUIDE

MARTYN RIX

2006. 256 p. $44.95. Hardcover. 750 color plates. 1000 species. Dimensions 1 × 11.25 × 8.9 inches. Timber Press. www.timberpress.com. ISBN-13: 978-0-88192-808-2, ISBN-10: 0-88192-808-9.

This book gives everybody the benefit of Martyn Rix's extensive knowledge of Subtropical Plants, his experience in designing gardens throughout the tropical areas of the world and his worldwide travels. This is all portrayed in the excellent photographic record within the book.

Perhaps the best aspect of this book is that it enlightens the reader about the ways of altering or commencing a garden to accommodate global warming in which climatic conditions are both warming and drying. Thus tropical plants can be grown in hitherto temperate climates or plants requiring heavy watering can be replaced by less water intensive varieties.

The book commences by giving information on climates and plants broken down over seven geographical regions. This enables readers to liken their own climatic conditions to those of other areas, thereby helping the selection of plants. To promote water conservancy there is a special section dedicated to plants which enjoy dry summer conditions followed by ideas for the designing and planting of gardens.

The bulk of the book (210 pages) consists of a plant directory grouped by genus into trees, shrubs, climbers, perennials, bulbs, annuals, cacti and succulents. Each genus is then subdivided into many illustrated examples of their various species together with a short history, cultivation information, growth, size and temperature requirements.

Following is an example of the information provided:

Eucalyptus (Myrtaceae) GUM

Eucalyptus is a large and important genus of evergreen trees and shrubs, with around 600 species in Australia. Some 113 of the species, including *E. ficifolia,* sometimes now separated into the genus *Corymbia,* have a compound inflorescence.

Eucalyptus ficifolia
RED-FLOWERING GUM
This is one of the most beautiful eucalyptus, with its large, rounded heads of bright red, crimson, pink, or white flowers, about 5 cm (2 in) across, in summer. It is wild in southwestern Australia, in sandy soil.
It makes a very good, small tree or large shrub in the Mediterranean or near the coast in California. The broadly lance shaped leaves are 10–20 cm (4–8 in) long.
Cultivation Grow in acid sandy soil. *Height to 15 m (50 ft); spread to* 6 m *(20 ft). USZ* 9–11, surviving −6.5°C *(20°F) of overnight frost. Tolerant of summer drought.*

To aid the gardener there is also a section listing plants for special uses in the garden. An extensive Index makes finding any species or illustration very easy.

At present Rix is working at the Royal Botanic Gardens at Kew as editor of *Curtis's Botanical Magazine.* He has been supported in the production of this book by the following: Foreward: Nigel Taylor (Curator, Kew Gardens), Commissioning Editor: Michele Byam, Senior Editor: Peter Taylor, Executive Art Editor: Penny Stock, Design: Jill Bryan, Editorial Research: Alison Rix, Production: Jane Rogers, Project Editor: Joanna Chisholm, Indexer: Sue Farr.

—Brian S. Hayden, Volunteer
Marie Selby Botanical Gardens
Sarasota, Florida 34236-7726 USA

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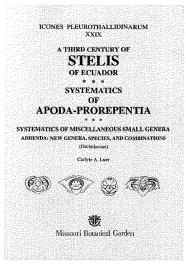

ICONES PLEUROTHALLIDINARUM—VOLUME XXIX—A THIRD CENTURY OF STELIS OF ECUADOR, SYSTEMATICS OF APODA-PROREPENTIA, SYSTEMATICS OF MISCELLANEOUS SMALL GENERA, ADDENDA NEW GENERA, SPECIES AND COMBINATIONS

CARLYLE A. LUER

2007. 130 p. $70.00. Softcover. 2 color photos. 4 maps. 132 drawings. Missouri Botanical Garden Press. www.mbgpress.com. ISBN 978-1-930723-63-4.

With this recent delivery of a third century of new species of *Stelis* Sw. from Ecuador (pp. 1–82), Carlyle A. Luer raised to three hundred the number of *Stelis* species he and his co-workers (notably Alex Hirtz and Lorena Endara) revealed to science in the last five years (Luer 2002, 2004). Taking into account a forthcoming lot of 130 previously known and new species (announced in the Introduction), plus some 50 names among those recorded by Schlechter (1921), the total number of accepted species known from Ecuador is close to 500, or over the half of the number of species presently known in the genus. However, according to Luer's estimate, Ecuadorian leadership in *Stelis* diversity is destined to fade as soon as a similar amount of time and effort in studying this genus will be expanded to the neighboring regions of Colombia and Peru, both of which are more than four times larger in geographic area. This let us easily envision a genus *Stelis* in the strict sense (as it is treated by Luer in his series) encompassing more than 1500 valid species, which will convert it into the largest Neotropical orchid genus and perhaps into the largest natural genus of the Orchidaceae as a whole.

As it is usual in Luer's "green books" series, each species is fully described, and paragraphs are provided on etymology and a short discussion for each taxon. With the exceptions of *S. lynniana* and *S. paulula,* which are known only from cultivated specimens without exact provenience, locality data are provided for all the species. All the new species are illustrated in composite ink plates by the well-trained hands of Luer himself and Stig Dalstrom. It is unfortunate that, for editorial reasons, the 101 plates had to be strongly reduced in size from the original full-page format, somewhat impeding a clearer view of the often-intricate floral details of *Stelis.*

Unlike the two previous parts of the treatment of *Stelis* of Ecuador (Luer 2002, 2004), section *Labiatae* is combined here with sect. *Stelis,* the diagnostic character of sect. *Labiatae* (the degree of connation of lateral sepals) proving to be inconsistent. The species of the new century are accordingly arranged into three sections, namely *Nexipous* (8 species), *Humboldtia* (8 species) and *Stelis* (87 species), the latter including sect. *Labiatae.* Because of the comparatively stable flower morphology and the mostly stereotyped vegetative architecture of *Stelis,* which makes such a large group difficult to manage for identification purposes, a key to the Ecuadorian species will be a welcome addition to part four of the series, where a systematic treatment is promised.

Following the third century of new *Stelis* from Ecuador, the fascicle includes systematic monographs of *Apoda-Prorepentia* (Luer) Luer, and other miscellaneous pleurothallid genera not previously treated in the "green" series. *Apoda-Prorepentia,* based on *Pleurothallis* sect. *Apoda-Prorepentes* Lindl. and elevated to generic rank by Luer (2004), includes in the present treatment 8 species, mostly characterized by the repent and often pendent habit, but with highly diverse floral morphology. According to the author, the genus ranges from Mexico to Brazil, Ecuador, and the West Indies, with a main center in northwestern Andes. A key to the species, full descriptions and notes, and a composite plate for each species are provided in the acclaimed style of previous *Icones Pleurothallidinarum* systematic treatments.

Six monotypic genera [namely *Cucumeria* Luer, *Empusella* (Luer) Luer, *Mirandopsis* Szlach. & Marg., *Mixis* Luer, *Mystacorchis* Szlach. & Marg., and *Psedoctomeria* Kraenzl.] are monographed; references are given to the species illustrations that appeared in previous

volumes, with the exception of *Mixis incongrua* Luer, which is depicted on page 104 of the present volume. Also monographed are *Physosiphon* Lindl. (2 species from Mexico to Peru, both illustrated, *P. emarginatum* in two different morphs), and *Physothallis* Garay (2 species endemic to Ecuador, illustrated on page 105).

In the Addenda section (pp. 106–130), devoted to miscellaneous new genera, species, and combinations, Luer describes *Effusiella,* a genus based on *Pleurothallis* subgen. *Effusia* Luer, and *Niphantha,* with 2 species segregated from the same subgenus (all treated as *Stelis sensu lato* by Pridgeon & Chase 2001). The first new genus is admittedly polymorphic and scarcely distinct from *Pabstiella* Brieger & Senghas, at the point that generic assignments should rely "on interpretation of subtle floral characters and distribution." Although noting that *Effusiella* and *Pabstiella* might constitute a single genus, 40 new combinations are published here under *Effusiella* (pp. 106–107, plus *E. vellozoana* amid Pabstiellas on p. 121), while 67 species are formally transferred to *Pabstiella* (pp. 119–121). Two new species of *Effusiella* are described and illustrated from Peru and Ecuador. *Nyphantha* is mainly distinguished from *Effusiella* by a comparatively large spathe and the lateral sepals free nearly to the base, and allegedly supported by an unpublished DNA analysis.

Additionally, new species are described and illustrated in the genera *Alaticaulia* (a recent segregate from *Masdevallia,* of which the author describes 3 new species from Ecuador and Peru) *Lepanthes* (4 species from Colombia and Ecuador), *Pleurothallis* (*P. davisii* from Ecuador), *Restrepia* (the Colombian *R. fritillina*), *Spilotantha* (another genus split from *Masdevallia*, of which a new species is described from Ecuador), *Stelis* (*S. maduroi* from Panama), *Trichosalpinx* (*T. sipapoensis* from Venezuela), and *Trisetella* (the Ecuadorean *T. klingeri*). Among nomenclatural changes, the volume offers 4 new combinations in *Acianthera,* 8 in *Alaticaulia,* 12 in *Anathallis,* 2 in *Echinosepala* [but *E. vittata* (Pupulin & M.A. Blanco) Luer is a superfluous name predated by *E. vittata* (Pupulin & M.A. Blanco) C.O. Murales & N. Villal. 2004)], 1 each in *Reichantha, Specklinia,* and *Tigivesta* (replaced name for *Vestigium* Luer, predated by a fungal genus), and 4 in *Teagueia.*

The plates of the four new species referable to genera allied to *Masdevallia* (*Alaticaulia inamoena, A. neukermansii, A. rojohnii* and *Spilotantha nigricans,* pp. 122–130) are numbered according to the format of *Systematics of Masdevallia,* bringing the total of numbered illustrations to 695.

—Franco Pupulin
Lankester Botanical Garden
Cartago, Costa Rica